

ATTACHMENT B

DR  
12-7-98

AR410174

Attachment B

SCOPE OF WORK FOR INTERIM MEASURES

PURPOSE

The purpose of Interim Measures are to identify and correct any actual or potential releases of hazardous waste or constituents from regulated units, solid waste management units, and other sources or areas at the facility which may present an endangerment to human health or the environment.

SCOPE

The Interim Measures consist of five tasks:

TASK I: INTERIM MEASURES WORK PLAN

- A. Interim Measures Objectives
- B. Community Relations Plan

TASK II: INTERIM MEASURES INVESTIGATION PROGRAM

- A. Data Collection Quality Assurance Plan
- B. Data Management Plan

TASK III: INTERIM MEASURES DESIGN PROGRAM

- A. Design Plans and Specifications
- B. Operation and Maintenance Plan
- C. Project Schedule
- D. Final Design Documents

TASK IV. INTERIM MEASURES CONSTRUCTION

- A. Construction Quality Plan
- B. Construction Activities
- C. Inspection Requirements

TASK V. PROGRESS REPORTS

- A. Bimonthly Progress Reports

DR  
12-7-98

AR410175

TASK I: INTERIM MEASURES WORK PLAN

Respondent shall prepare an Interim Measures Work Plan. The Work Plan shall include the development of several plans which shall be prepared concurrently.

A. Interim Measures Objectives

The Work Plan shall specify the objectives of the interim measures, demonstrate how the interim measures will abate releases and threatened releases, and, to the extent possible, be consistent and integrated with any long-term solution at the facility. The Interim Measures Work Plan will include a discussion of the technical approach, engineering design, engineering plans, schedules, budget, and personnel. The Work Plan will also include a description of qualifications of personnel performing or directing the interim measures, including contractor personnel. This plan shall also document the overall management approach to the interim measures.

B. Community Relations Plan

Respondent shall prepare a plan for the dissemination of information to the public regarding interim measure activities and results. These activities shall include the preparation and distribution of fact sheets and participation in public meetings.

TASK II: INTERIM MEASURES INVESTIGATION PROGRAM

A. Data Collection Quality Assurance Plan

The Respondent shall prepare a plan to document all monitoring procedures: sampling, field measurements, and sample analysis performed during the investigation to characterize the source and contamination, so as to ensure that all information, data, and resulting decisions are technically sound, statistically valid, and properly documented.

DR  
12-7-98

AR410176

1. Data Collection Strategy

The strategy section of the Data Collection Quality Assurance Plan shall include, but not be limited to, the following:

- a. Description of the intended uses for the data, and the necessary level of precision and accuracy for these intended uses;
- b. Description of methods and procedures to be used to assess the precision, accuracy, and completeness of the measurement data;
- c. Description of the rationale used to assure that the data accurately and precisely represent a characteristic of a population, parameter variations at a sampling point, a process condition, or an environmental condition. Examples of factors which shall be considered and discussed include:
  1. Environmental conditions at the time of sampling;
  2. Number of sampling points;
  3. Representativeness of selected media; and
  4. Representativeness of selected analytical parameters.
- d. Description of the measures to be taken to assure that the following data sets can be compared to each other:
  1. Data generated by the Respondent over some time period;
  2. Data generated by an outside laboratory or consultant versus data generated by the Respondent;

DJR  
12-7-98

AR410177

3. Data generated by separate consultants or laboratories; and
4. Data generated by an outside consultant or laboratory over some time period.
- e. Details relating to the schedule and information to be provided in quality assurance reports. The reports should include, but not be limited to:
  1. Periodic assessment of measurement data accuracy, precision, and completeness;
  2. Results of performance audits;
  3. Results of system audits;
  4. Significant quality assurance problems and recommended solutions; and
  5. Resolutions of previously stated problems.
2. Sampling and Field Measurements

The Sampling and Field Measurements section of the Data Collection Quality Assurance Plan shall discuss:

- a. Selecting appropriate sampling and field measurement locations, depths, etc.;
- b. Providing a statistically sufficient number of sampling and field measurement sites;
- c. Measuring all necessary ancillary data;
- d. Determining which media are to be sampled (e.g., ground water, soil, sediment, etc.);

DR  
12-7-98

AR410178

- e. Determining which parameters are to be measured and where;
- f. Selecting the frequency of sampling and field measurement and the length of sampling period;
- g. Selecting the types of sample (e.g., composites vs. grabs) and the number of samples to be collected;
- h. Documenting field sampling and field measurement operations and procedures, including;
  - 1. Documentation of procedures for preparation of reagents or supplies which become an integral part of the sample (e.g., filters and adsorbing reagents);
  - 2. Procedures and forms for recording the exact location and specific considerations associated with sample and field measurement data acquisition;
  - 3. Documentation of specific sample preservation method;
  - 4. Calibration of field devices;
  - 5. Collection of replicate samples;
  - 6. Submission of field-biased blanks, where appropriate;
  - 7. Potential interferences present at the facility;
  - 8. Construction materials and techniques, associated with monitoring wells and piezometers;
  - 9. Field equipment listing and sample containers;

DR  
12-7-98

AR410179

10. Sampling and field measurement order; and
  11. Decontamination procedures.
    - i. Selecting appropriate sample containers;
    - j. Sample preservation; and
    - k. Chain-of-custody, including:
      1. Standardized field tracking reporting forms to establish sample custody in the field prior to shipment; and
      2. Pre-prepared sample labels containing all information necessary for effective sample tracking.
3. Sample Analysis

The Sample Analysis section of the Data Collection Quality Assurance Plan shall specify the following:

- a. Chain-of-custody procedures, including:
  1. Identification of a responsible party to act as sample custodian at the laboratory facility authorized to sign for incoming field samples, obtain documents of shipment, and verify the data entered onto the sample custody records;
  2. Provision for a laboratory sample custody log consisting of serially numbered standard lab-tracking report sheets; and
  3. Specification of laboratory sample custody procedures for sample handling, storage, and dispersment for analysis.

DEL  
12-7-98

- b. Sample storage and holding times;
- c. Sample preparation methods;
- d. Analytical procedures, including:
  - 1. Scope and application of the procedure;
  - 2. Sample matrix;
  - 3. Potential interferences;
  - 4. Precision and accuracy of the methodology; and
  - 5. Method detection limits.
- e. Calibration procedures and frequency;
- f. Data reduction, validation and reporting;
- g. Internal quality control checks, laboratory performance and systems audits and frequency, including:
  - 1. Method blank(s);
  - 2. Laboratory control sample(s);
  - 3. Calibration check sample(s);
  - 4. Replicate sample(s);
  - 5. Matrix-spiked sample(s);
  - 6. "Blind" quality control sample(s);
  - 7. Control charts;
  - 8. Surrogate samples;

*DJR*  
12-7-98

AR410181

9. Zero and span gases; and

10. Reagent quality control checks.

A performance audit may be conducted by EPA on the laboratories selected by the Respondent.

h. Preventive maintenance procedures and schedules;

i. Corrective action (for laboratory problems); and

j. Turnaround time.

B. Data Management Plan

The Respondent shall develop and initiate a Data Management Plan to document and track investigation data and results. This plan shall identify and set up data documentation materials and procedures, project file requirements, and project-related progress reporting procedures and documents. The plan shall also provide the format to be used to present the raw data and conclusions of the investigation.

1. Data Record

The data record shall include the following:

a. Unique sample or field measurement code;

b. Sampling or field measurement location and sample or measurement type;

c. Sampling or field measurement raw data;

d. Laboratory analysis ID number;

e. Property or component measured; and

f. Result of analysis (e.g., concentration).

DOL  
12-7-98

## 2. Tabular Displays

The following data shall be presented in tabular displays:

- a. Unsorted (raw) data;
- b. Results for each medium, or for each constituent monitored;
- c. Data reduction for numerical analysis;
- d. Sorting of data by potential stratification factors (e.g., location, soil layer, topography); and
- e. Summary data.

## 3. Graphical Displays

The following data shall be presented in graphical formats (e.g., bar graphs, line graphs, area or plan maps, isopleth plots, cross-sectional plots or transects, three dimensional graphs, etc.):

- a. Display sampling location and sampling grid;
- b. Indicate boundaries of sampling area, and areas where more data are required;
- c. Display levels of contamination at each sampling location;
- d. Display geographical extent of contamination;
- e. Display contamination levels, averages, and maxima;
- f. Illustrate changes in concentration in relation to distance from the source, time, depth, or other parameters; and

*DR*  
12-7-98

- g. Indicate features affecting intramedia transport and show potential receptors.

TASK III: INTERIM MEASURES DESIGN PROGRAM

A. Design Plans and Specifications

Respondent shall develop clear and comprehensive design plans and specifications which include, but are not limited to, the following:

1. Discussion of the design strategy and the design basis, including:
  - a. Compliance with all applicable or relevant environmental and public health standards; and
  - b. Minimization of environmental and public impacts.
2. Discussion of the technical factors of importance, including:
  - a. Use of currently accepted environmental control measures and technology;
  - b. The constructibility of the design; and
  - c. Use of currently acceptable construction practices and techniques.
3. Description of assumptions made and detailed justification of these assumptions;
4. Discussion of the possible sources of error and references to possible operation and maintenance problems;
5. Detailed drawings of the proposed design, including:
  - a. Qualitative flow sheets;

12-7-98

- b. Quantitative flow sheets;
  - c. Facility layouts;
  - d. Utility locations.
- 6. Tables listing materials, equipment, and specifications;
  - 7. Tables giving material balances; and
  - 8. Appendices, including:
    - a. Sample calculations (one example presented and explained clearly for a significant or unique design calculation);
    - b. Derivation of equations essential to understanding the report; and
    - c. Results of laboratory or field tests.

General correlation between drawings and technical specifications, is a basic requirement of any set of working construction plans and specifications. Before submitting the project specifications, Respondent shall coordinate and cross-check the specifications and drawings and complete the proofing of the edited specifications and required cross-checking of all drawings and specifications.

B. Operation and Maintenance Plan

Respondent shall prepare an Operation and Maintenance Plan to cover both implementation and long-term maintenance of the interim measure(s). The plan shall be composed of the following elements:

- 1. Equipment start-up and operator training;
  - a. Respondent shall prepare, and include in the technical

DOR  
12-7-98

specifications governing treatment systems, contractor requirements for providing appropriate service visits by experienced personnel to supervise the installation, adjustment, startup, and operation of the treatment systems, and training covering appropriate operational procedures once the startup has been accomplished successfully.

2. Description of normal operation and maintenance (O&M), including:
  - a. Description of tasks for operation;
  - b. Description of tasks for maintenance;
  - c. Description of prescribed treatment or operation conditions;
  - d. Schedule showing frequency of each O&M task; and
  - e. Common and/or anticipated remedies.
3. Description of routine monitoring and laboratory testing, including:
  - a. Description of monitoring tasks;
  - b. Description of required laboratory tests and their interpretation;
  - c. Required QA/QC; and
  - d. Schedule of monitoring frequency and date, if appropriate, when monitoring may cease.
4. Description of equipment, including:
  - a. Equipment identification;

*DS*  
12-7-98

AR410186

- b. Installation of monitoring components;
  - c. Maintenance of site equipment; and
  - d. Replacement schedule for equipment and installed components.
5. Records and reporting mechanisms required, including:
- a. Daily operating logs;
  - b. Laboratory records;
  - c. Mechanism for reporting emergencies;
  - d. Personnel and maintenance records; and
  - e. Monthly/annual reports to Federal/state agencies.

The Operation and Maintenance Plan shall be submitted with the Final Design Documents.

C. Project Schedule

Respondent shall develop a detailed Project Schedule for construction and implementation of the interim measure(s) which identifies timing for initiation and completion of all critical path tasks. Respondent shall specifically identify dates for completion of the project and major interim milestones which are enforceable terms of this order. A Project Schedule shall be submitted simultaneously with the Final Design Documents.

D. Final Design Documents

The Final Design Documents shall consist of the Final Design Plans and Specifications (100% complete), the Final Draft Operation and Maintenance Plan, and the Project Schedule. Respondent shall submit the final documents, 100% complete, with reproducible drawings and specifications. The quality of the

design documents should be such that Respondent would be able to include them in a bid package and invite contractors to submit bids for the construction project.

TASK IV: INTERIM MEASURES CONSTRUCTION QUALITY ASSURANCE PLAN

A. Construction Quality Assurance Plan

Respondent shall revise the QAPP, to be submitted pursuant to Attachment A of this Order, to identify and document the objectives and framework for the development of an Interim Measures Construction Quality Assurance Program ("IMCQA Plan"). The IMCQA Plan shall include, but not be limited to, the following: personnel qualifications; inspection activities; sampling requirements; documentation; responsibility and authority of all organizations (i.e., technical consultants construction firms, etc.) and key personnel involved in the construction of the Interim Measures. Reporting requirements for IMCQA activities shall be described in detail in the IMCQA Plan. This Plan shall include such items as daily summary reports, inspection data sheets, problem identification and Interim Measures reports, design acceptance reports, and final documentation. Provisions for the final storage of all records shall be presented in the IMCQA Plan. The Plan shall identify an IMCQA officer and the necessary supporting inspection staff.

B. Construction Activities

Following EPA approval of the Interim Measures Final Design Documents and the IMCQA Plan, Respondent shall implement construction in accordance with the procedures, specifications, and schedules in the EPA-approved Interim Measures Design Documents, the Interim Measures Project Management Plan, and the Interim Measures Construction Quality Assurance Plan.

C. Inspection Activities

The observations and tests that will be used to monitor the construction and/or installation of the components of the interim

DSL  
12-7-98

measure(s) shall be summarized in the CQA plan. The plan shall include the scope and frequency of each type of inspection. Inspections shall verify compliance with all environmental requirements and include, but not be limited to, air quality and emissions monitoring records, waste disposal records (e.g., RCRA transportation manifests), etc. The inspection should also ensure compliance with all health and safety procedures. In addition to oversight inspections, Respondent shall conduct the following activities:

1. Preconstruction inspection and meeting;

Respondent shall conduct a preconstruction inspection and meeting to:

- a. Review methods for documenting and reporting inspection data;
- b. Review methods for distributing and storing documents and reports;
- c. Review work area security and safety protocol;
- d. Discuss any appropriate modifications of the construction quality assurance plan to ensure that site-specific considerations are addressed; and
- e. Conduct a site walk-around to verify that the design criteria, plans, and specifications are understood and to review material and equipment storage locations.

The preconstruction inspection and meeting shall be documented by a designated person and minutes should be transmitted to all parties.

DOE  
12-7-98

AR410189

TASK V: PROGRESS REPORTS

A. Bimonthly Progress Reports

Respondent shall at a minimum provide the EPA with signed, bimonthly progress reports containing:

1. A description and estimate of the percentage of the interim measures completed;
2. Summaries of all findings;
3. Summaries of all changes made in the interim measures during the reporting period;
4. Summaries of all contacts with representative of the local community, public interest groups, or state government during the reporting period;
5. Summaries of all problems or potential problems encountered during the reporting period;
6. Actions being taken to rectify problems;
7. Changes in personnel during the reporting period;
8. Projected work for the next reporting period; and
9. Copies of daily reports, inspection reports, laboratory/monitoring data, etc.

B. Interim Measures Work Plan

Respondent shall submit an Interim Measures Work Plan as described in this Attachment.

DR2  
12-7-98

AR410190

C. Final Design Documents

Respondent shall submit the Final Design Documents as described in this Attachment.

D. Draft Interim Measures Report

At the "completion" of the construction of the project (except for long-term operation, maintenance, and monitoring), Respondent shall submit an Interim Measures Implementation Report to the Agency. The Report shall document that the project is consistent with the design specifications and that the interim measures are performing adequately. The Report shall include, but not be limited to the following elements:

1. Synopsis of the interim measures and certification of the design and construction;
2. Explanation of any modifications to the plans and why these were necessary for the project;
3. Listing of the criteria, established before the interim measures were initiated, for judging the functioning of the interim measures and also for explaining any modification to these criteria;
4. Results of facility monitoring, indicating that the interim measures will meet or exceed the performance criteria; and
5. Explanation of the operation and maintenance (including monitoring) to be undertaken at the facility.

This report shall include the inspection summary reports, inspection data sheets, problem identification and corrective reporting data sheets, design engineers' acceptance reports, deviations from design and material specifications (with justifying documentation), and as-built drawings.

DOL  
12-7-98

AR410191

E. Final Interim Measures Report

Respondent shall finalize the Interim Measures Work Plan and the Interim Measures Implementation Report incorporating comments received on the draft submissions.

Attachment C

SCOPE OF WORK FOR HEALTH AND SAFETY PLAN

The Respondent shall prepare a facility Health and Safety Plan.

1. Major elements of the Health and Safety Plan shall include:
  - a. Facility description including availability of resources such as roads, water supply, electricity, and telephone service;
  - b. Description of the known hazards and evaluations of the risks associated with the incident and with each activity conducted, including, but not limited to, on- and off-site exposure to contaminants;
  - c. List of key personnel and alternates responsible for site safety, response operations, and protection of public health;
  - d. Delineation of work area;
  - e. Description of levels of protection to be worn by personnel in work area;
  - f. Establishment of procedures to control site access;
  - g. Description of decontamination procedures for personnel and equipment;
  - h. Establishment of site emergency procedures;
  - i. Emergency medical care for injuries and toxicological problems;
  - j. Description of requirements for an environmental surveillance program;
  - k. Routine and special training required for responders; and
  - l. Establishment of procedures for protecting workers from weather-related problems.

DR  
12-7-98

AR410194

2. The facility Health and Safety Plan shall be consistent with:
  - a. NIOSH Occupational Safety and Health Guidance Manual For Hazardous Waste Site Activities (1985);
  - b. EPA Order 1440.3 - Respiratory Protection;
  - c. EPA Order 1440.2 - Health and Safety Requirements for Employees Engaged in Field Activities;
  - d. Facility Contingency Plan;
  - e. EPA Standard Operating Safety Guide (1984);
  - f. OSHA regulations, particularly in 29 C.F.R. 1910 and 1926;
  - g. State and local regulations; and
  - h. Other EPA guidance as provided.
3. The Health and Safety Plan must be revised to address any additions and/or changes in planned activities.

DCI  
12-7-98

AR410195